

# Resettable Analogue Linear Heat Detection Cable



The Patol Resettable Analogue Linear Heat Detection Cable (LHDC) is designed to provide early detection of fire and overheating in circumstances where other forms of detection would not be viable, either due to inability to sustain the environment requirements or through prohibitive costs.

Extensive single zonal lengths of the LHDC may be installed with the ability to trigger alarms for hot spots occurring on very small sections of the overall cable.

Resettable Analogue LHDC is a coaxial cable constructed with a copper coated steel central conductor, an inner insulation (dielectric), a tinned copper braid layer and an overall Flame Retardant Polyethylene (FRPE) protective sheath.

The primary mechanism of heat (fire) detection is that the resistance of the dielectric, monitored between the central conductor and braid layer, has a negative temperature coefficient (NTC).

Resettable Analogue LHDC is employed in conjunction with an end of line functional unit and a zone monitoring unit or control panel with an appropriate LHDC interface channel.

LHDC may be installed in Hazardous areas by means of Intrinsically Safe Zener Barriers. Similarly when the protected area is remote from the monitoring equipment interposing cables may be employed.

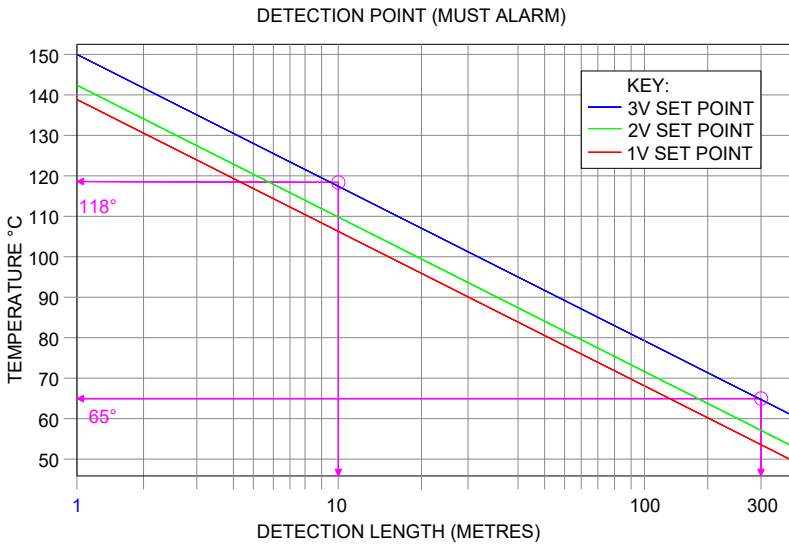
## Features

- Low Smoke Zero Halogen
- Adjustable Alarm set point
- Recoverable and resettable operation
- Can detect hot spots
- Zones of up to 500m in length
- Chemical resistant
- Mechanical protection available
- Easy to install
- Compatible with a full range of monitoring devices
- RoHS compliant - Lead Free

## Applications

- Cable Tunnels, Ducts & Mezzanines
- Escalators & Moving Walkways
- Petro-Chemical Storage Tanks
- Paint Shops & Spray Booths
- Conveyors - Coal, Biomass, Sulphur. etc
- Ceiling Voids & Attic Spaces
- Road & Rail Tunnel Carriageways / Sumps
- Nuclear Reactor Plant Areas
- Refrigerated Stores & Cold Rooms
- Electrical Control & Switchgear Cabinets
- Warehouse High Rise Pallet Racking
- Oil Rigs & Off Shore Platforms
- Fume Cupboards & Glove Boxes
- Grain Silos & Agricultural Storage
- Road / Rail Vehicle Engine Compartments
- Steam Pipe Leaks & Trace Heating Faults
- Product Lines - Flanges, Valves & Pumps
- Computer Room under Floor Cable Voids

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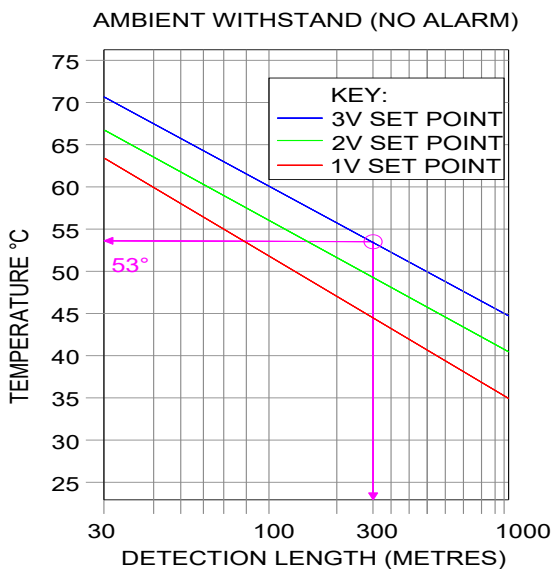


LHDC Interface Modules are equipped with sensitivity / trip adjustments. The graphs show three typical settings; 1V, 2V and 3V.

This example shows a typical application where 300m of LHDC is employed in conjunction with an Interface Module adjusted for a 3Volt set point.

- The upper graph shows that a temperature elevation of a 10m section of the zone **will** produce an alarm trigger at a maximum of 118°C
- The lower graph shows that the whole of the zone will withstand ambient temperatures up to 53°C **without** any alarm triggers
- Margin and tolerance are applied to the curves. In practice the ambient temperature will be greater than 53°C.

Note: For further information refer to full LHDC Data Sheet D1167.



## Specification

### Outer Sheath:

Red Flame Retardant Polyethylene (FRPE) - Standard  
 Stainless Steel & FRPE - Mechanical Protection

### Outer Diameter:

Red FRPE: 3.3 mm ±10%  
 Stainless Steel & FRPE:- 5 mm

**Minimum Operating Temperature:** -20°C

**Minimum Installation Temperature:** 0°C

### Weight 1km on the reel:

Red FRPE: 19kg  
 Stainless Steel & FRPE: 21kg (500m reel)

**Tensile Strength:** 200 Newtons

## Ordering Information

**Controllers and Termination Boxes used with Analogue Cables:**

Description	Part Number
LDM-519-LP	700-201
LDM-519-SEN-N	700-305
LDM-519-ACT-N	700-304
EU-R 19" Rack Mount	refer D1216
EOL & Junction Boxes	refer D1120

## LHDC Analogue Cables

Description	Part Number
Red FRPE	700-001LS0H
Red FRPE S.S*	700-005LS0H
*Stainless Steel Braid	

**PATOL**  
 FIRE DETECTION SOLUTIONS